W5YI

National Volunteer Examiner Coordinator

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

Fred Maia, W5YI, Editor, P.O. Box 565101, Dallas, TX 75356-5101

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September 15, 1988

FCC ISSUES 220-222 MHz ORDER

In an exhaustive, 10-page Report & Order (R&O) in General Docket 87-14, the FCC on September 6 defended its reasons for reallocating the 200-222 MHz band to the land mobile radio market and allocating 222-225 MHz to Amateur Radio on an exclusive basis.

The R&O praises the Amateur Service at some length while refuting in detail the many arguments voiced by amateurs against the reallocation of this prime portion of spectrum. In fact, the FCC believes the reallocation will help Amateur Radio, by removing the "cloud" that has, in the FCC's words, "discouraged investment and use of the 220-MHz band by the amateur community." Also, the FCC appears to have defended amateur operations against the proposed removal of additional spectrum as requested by Forest Industries Telecommunications and the Electronics Industries Association.

BACKGROUND

The Commission explained that the 1979 World Administrative Radio Conference (WARC) allocated 216-220 MHz to maritime mobile and fixed services and 220-225 to the mobile, fixed and amateur services. It provided for phasing-out of the radiolocation service that had been authorized in 216-225 MHz before the WARC.

In the U.S., the FCC allocated 216-220 to the Automated Maritime Telecommunications Service in certain regions of the country and permitted aeronautical, fixed and land mobile telemetry operations to operate in the band on a secondary basis. The FCC allocated 220-225 on a coequal primary basis to amateur, fixed and mobile services but did not allow fixed and mobile services to start until an allocation plan for government/non-government sharing was completed.

In 1984 and 1985 the FCC received three petitions to modify the 220 MHz allocations from the Land Mobile Communications Council, a group of commercial two-way radio trade associations; Sideband Technology, a manufacturer of ACSB radios; and LAOAD, a communications consulting firm operated by Robert M. Snyder, W9GT, of Lockport, Illinois. [LAOAD is Bob's Norwegian amateur radio call sign.] These petitioners argued that more land mobile spectrum is needed; LAOAD asked for primary channels for fixed industrial telemetry usage in particular.

The FCC initiated its proposal to reallocate the band on February 1, 1987, relying on the ARRL 1985-86 Repeater Directory to provide an indication of repeater activity: "The Repeater Directory indicated that most repeater operations were concentrated above 222 MHz. Further, because the number of repeaters was light in comparison with other amateur bands, it appeared that displaced amateur 220-222 MHz operations could be reaccomodated above 222 MHz." Many hams contradicted this assessment, noting that the Repeater Directory does not contain many types of fixed and experimental

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uses, such as control, auxiliary and repeater links. packet radio and propagation beacons, weak signal and moonbounce operations.

Land mobile interests supported the proposal, arguing that enough frequencies for narrowband operations were not available in the land mobile bands at 150 and 450 MHz and the interference restrictions together with heavy usage of these bands precluded growth of narrowband activity. United Parcel Service, in late-filed comments, wanted to develop a "state of the art" delivery system at 220-MHz using narrowband technologies.

COMMENTERS PROPOSE ALTERNATIVES

The ARRL filed a technical report arguing that 30-50 MHz was a feasible band for narrowband technology. The FCC disagreed, noting the skip interference, radio noise and long wavelength of this band made it inappropriate for reallocating other land mobile bands for narrowband at this time. [A quarter wavelength antenna would vary between four and one-half feet and about eight feet ...impractical for portable use.]

The FCC similarly dismissed arguments that reallocating other land mobile bands for narrowband was not feasible due to the displacement and cost to the thousands of existing users.

It believed that TV channel 13 interference as well as conflict with the maritime services would result if increased land mobile operations were permitted at 216-220 MHz. LAOAD had suggested that 225-235 MHz be examined as an alternative for narrowband land mobile, but the FCC said that band is "used for government military operations that are vital to national security interest", in particular for "air-ground communications by high-performance military aircraft."

In disputing amateurs' claim that reallocation would have a great impact on their service, the FCC noted land mobile interests' comments that Amateur Radio has 69 MHz of spectrum in the VHF and UHF bands, with approximately 425,000 licensees. In contract, the private land mobile services have 90.8 MHz of spectrum with 8 to 9 million transmitters. Stephens Engineering Associates, another ACSB radio manufacturer, stated that amateur allocations provide 1.62 MHz of spectrum per 10,000 operators as opposed to .11 MHz for every 10,000 private land mobile operators.

LIGHTLY USED FROM ANY PERSPECTIVE

The FCC said "We continue to believe that the ARRL Repeater Directory provides the best available representation of amateur fixed/mobile/repeater operations" along with ARRL filings documenting the use of 220: "In the 220-220 MHz band, ARRL's comments list 773 fixed operations. This is less than eleven fixed operations per channel on a nationwide basis. This leaves an extremely large number of unused channels throughout most of the country. In fact, we find that there are only three states, California, New York and Texas, that even have enough operations to require sharing of frequencies. ... We conclude that from any perspective the 220-225 MHz band is lightly used by the Amateur Service."

The Commission also found light use is made of the band for packet radio. Directory's 1272 packet listings in all bands, "only nine percent are in the 220-222 MHz band and four percent are in the 222-225 MHz band. The majority of the packet operations, 80%, are in the 144-148 MHz band. ... For this reason, we believe very few of the packet opprations will be affected by this rule making as most are already in bands other than the 220-222 MHz band." The R&O also said "With regard to the development of long distance packet operations, we believe there is ample spectrum available in the 222-225 MHz band, particularly in the rural areas between cities."

Regarding control links, the FCC said that "using an exclusive channel for each control link is extremely wasteful and poor spectrum management. Further, we note the Commission recently proposed allowing auxiliary operations, which includes control links, on all amateur frequencies. This proposal was opposed by many amateurs, including ARRL."

With regard to moonbounce, the FCC noted that the suggested ARRL band plan provides allotments for fixed and experimental uses including moonbounce in 222-225 MHz. It noted that a principal objective of moonbounce is "to achieve long distance communications", yet ITU regions I and III do not have amateur operations at 220-225 MHz and thus would not have moonbounce activity. This would be a disincentive to moonbounce at 220, the FCC believed.

Amateurs argued that 220-222 MHz is

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TEST MANUAL

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Technician - Element3(A)

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needed for future growth of their service. In response, the FCC said that ham radio growth "appears to be relatively stable with a modest average one percent annual growth over the last five years" and about 5.3 percent total growth over the last five years.

"We note that there are a large number of frequency bands throughout the usable spectrum allocated and available to the Amateur Service. A number of these bands are capable and do support amateur operations similiar to those of the 220-222 MHz amateur band. In particular are the 28-29.7 MHz, 50-54 MHz, 144-148 MHz, 222-225 MHz, 420-450 MHz, 902-928 MHz and 1240-1300 MHz bands. These bands provide the Amateur Service with 128.7 megahertz of spectrum. ...Further we believe that the loss of use of the two megahertz from the 220-222 MHz bands, which represents less than a two percent reduction in amateur spectrum, will have little impact on the growth of the Amateur Service."

The FCC noted that the shift in operating frequency from 220-222 MHz represents about a 1% shift in frequency. "It should not be difficult to retune existing crystal-controlled equipment by this amount, particularly given the technical expertise of amateurs."

The FCC said that with the exception of 400 kHz of spectrum alloted for experimental and control links, all of the amateur activities listed in the band plan for the 220-222 MHz band have exact duplicate provisions above 222 MHz. "Further, it appears that control links and packet radio can be located above 222 MHz with no difficulty in most parts of the country and with some coordination in a few areas of high density use."

Repeatedly throughout the R&O the FCC complimented the Amateur Service by recognizing, for example, "countless occasions" in which amateurs have performed public service. The agency stated its belief that the uncertainty about 220's future has discouraged hams from operating in the band and manufacturers from building equipment for the band.

FCC COUNTERS DEPT. OF DEFENSE, SBA

When the Department of Defense and the Small Business Administration filed in support of the existing allocation, including amateur usage, many

hams believed that these key shows of support would be powerful enough to persuade the FCC not to tinker with 220. Defense had indicated that it is interested in using 220-225 MHz for an advanced radar system and opposed a primary land mobile allocation.

In response, the FCC noted in the R&O that the Department of Commerce's National Telecommunications and Information Administration (NTIA), which has the authority to make frequency assignments to government stations, concurs with the FCC allocations in the proceeding. The FCC said it is impossible to determine if 220-225 MHz is really needed or if the radar could be accommodated in other bands. It also noted that 216-225 MHz has been reallocated internationally and will only be available to existing radiolocation operations and then only on a secondary basis starting in 1990.

The FCC also refuted the Small Business Administration's suggestion that small businesses would be affected detrimentally by the reallocation: "We recognize that there are some small businesses that manufacture amateur equipment that may be used in the 220-222 MHz band. We are also aware that some amateurs construct their own equipment and may sell units to other amateurs. However, it is our observation that much of the amateur equipment on the market is produced abroad by large companies. Further the comments addressing the manufacture of amateur equipment made no showing that their equipment could not be used in either the 222-225 MHz band or other amateur bands."

Forest Industries Telecommunications (FIT), a trade association of forestry two-way radio interests, asked the FCC to allocate more than the proposed amount of spectrum -- three, not two, megahertz -- to land mobile at 220. We pointed out in our September 15, 1987, issue that FIT held this position while at the same time applying to the FCC for permission to become an Amateur Radio Special Call Sign Coordinator (SCSC) in PRB-3!

Fortunately for amateurs, the FCC disagreed. "We do not believe the benefits of providing an extra megahertz for land mobile outweigh the negative impact that it would have on the Amateur Service. Current amateur repeater equipment in the 220-225 MHz band use a separation between the transmit and receive frequency of 1.6 MHz. To decrease the amateur allocation to two megahertz

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would decrease the number of channel pairs for fixed/mobile/repeater operations from 54 channel pairs to 20 channel pairs or would require changing the frequency separation of the amateur equipment to one megahertz which would make current amateur fixed/mobile/repeater equipment obsolete. Neither of these options are acceptable," the FCC said.

The Electronics Industries Association (EIA) had asked the FCC to allocate one megahertz out of 220 for cordless telephones. The FCC again disagreed, stating that the frequencies the EIA requested "would have far greater impact on amateur operations due to existing repeater use."

SUMMARY

The R&O allows ham use of 220-222 MHz under current allocations until the FCC establishes rules for usage by government and non-government stations, a process that will probably take at least a year. "Amateurs are cautioned," the FCC said, "to refrain from making any investments in equipment that would only be suitable for operation in this band. Amateur stations should begin an orderly transition of on-going operations in the 220-222 MHz band to other Amateur Service frequency bands so that an abrupt termination of such activities will not be necessary."

The FCC also invited petitions for rulemaking "to address any changes to the amateur service rules that it finds desirable in preparation of the removal of the 220-222 MHz band." It gave examples such as lifting of the prohibition on auxiliary link operation on some or all of the longer wavelength bands and placing a prohibition on repeater operation in a portion of the 222-225 MHz band.

The FCC said that the Report & Order to reallocate the 220 megahertz band reponds to the unresolved issue of General Docket 80-739, Implementation of the 1979 World Administrative Radio Conference, which left the allocation of this band open until a separate proceeding could address all of the issues involved. The R&O is effective October 1, 1988.

PETITIONS FOR RECONSIDERATION

Numerous Petitions for Reconsideration of the reallocation from amateurs have already been received at the FCC, and the ARRL will submit its petition within thirty days after release of the R&O. FCC rules provide that the agency will only grant a *Petition for Reconsideration* of an action if the petition meets certain criteria. For example, it may favorably consider the petition if it relates to facts or events that have occurred or circumstances that have changed since the last opportunity to present them to the Commission.

Another criterion is that the facts relied on were unknown to the petitioner until after the last opportunity to present them to the FCC, and could not through the exercise of ordinary diligence have been learned before that opportunity. The FCC can always decide in any event that consideration of the facts relied on is "required in the public interest."

The FCC has been given considerable leeway to decide frequency allocation issues, and expectations are not high that the *Petitions for Reconsideration* will be granted. Great tension exists between the land mobile and broadcasting industries as they compete for spectrum allocations ...tension that puts much pressure on the FCC. This grant of two megahertz at 220 to land mobile is not expected to satisfy land mobile completely in its quest for more spectrum, but it functions as a valve to relieve some of the pressure created by this conflict between powerful interests. The FCC may not wish to close a valve it finds useful. A court appeal by the ARRL is virtually certain.

Still to be resolved is a petition from *TV Answer, Inc.*, requesting that 500 kHz be allocated somewhere between 216 and 222 MHz for a *TV* broadcast viewer response system. The FCC said this petition will be considered on its own merits and addressed in a separate proceeding.

HAM ACCESS PROPOSED TO 18-MHz BAND

On September 1, 1988, the Commission initiated a rulemaking proceeding to determine the best way to permit use of the 17 meter band by the Amateur Services.

Specifically, it proposed allowing amateur station operation in the entire 17 meter band. Additionally, it proposed creating a 42 kHz telegraphy/digital emissions subband [18.068 to 18.110 MHz] similar to those in the other high frequency Amateur Service bands. In the balance of the band, the Commission proposed authorizing telephony, facsimile and television emissions.

"I am a currently licensed Extra Class amateur radio operator and wist to be yolur to the property of the property of the property of suspended. I do not own a significant EXAMINER? A VOLUNTEER E U LIKE TO BECOME You .

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The FCC proposed making the 17 meter band available to General, Advanced and Amateur Extra Class operator licensees. It tentatively concluded that use of the 17 meter band requires the skill and knowledge of General operators and above. [The Technician Class amateur radio operator examination is primarily geared to VHF and higher frequency operation.] Finally, the Commission proposed no power limitations in the band other than those which generally govern the Amateur Services.

The Final Acts of the 1979 World Administrative Radio Conference allocated the 17 meter band [18.068-18.168] to the Amateur and Amateur-Satellite Services. Normally, a two-step process follows domestically after such an allocation of a frequency band internationally. The FCC has taken the first step, by amending the domestic Table of Allocations, to add 17 meters as an Amateur Services allocation.

The second step has awaited the removal of Government fixed operations from this band. These operations must be terminated no later than July 1, 1989. To then make this spectrum available to amateur stations by July 1, 1989, the FCC must adopt rules in the Amateur Services for use of the spectrum, which is initiated by this NPRM. The actual Notice of Proposed Rulemaking is not yet available ...only the FCC press release. We will go into more detail once we have it.

IFCC Action: 9/1/88 by NPRM, PR Docket 88-467]

ARRL FILES PETITION, MOTION WITH FCC

The American Radio Relay League filed a Petition for Rule Making on September 7th seeking authorization for amateurs to operate automaticallycontrolled beacon stations between 144.275-144.300, 220.275-220.300 and 432.300-432.400 MHz. These frequencies would be substituted for those presently specified for automatically-controlled beacon operation in Section §97.87(e) of the Rules, (i.e.: 144.05-144.06, 220.05-220.06, 222.05-222.06 and 432.07-432.08 MHz.) The League wants the beacon frequencies moved so that they will not fall "squarely within the portions of each band used for weak-signal amateur communications." [Since the FCC has reallocated the 220-222 MHz band, however, it is not possible for the 220-275-220.300 MHz portion to be approved.]

On July 25th, the ARRL filed a Motion to

Extend the time for filing comments on the "Rewrite and Deregulation of Part §97 of the Rules Governing the Amateur Radio Services." The League said they needed an additional 90 days for its ad hoc committee to complete the review of the proposed rewrite. The League's request was approved on August 22nd by Ralph Haller/N4RH, Chief, Private Radio Bureau. The new Part 97 rewrite comment cut-off date is now November 29, 1988 ...reply comments must be filed by January 31, 1989.

AMATEUR "BULLETIN" PETITION DENIED

On March 24, 198, **Bently F. Adams, Jr., K7LR**, of Wheaton, Illinois, proposed that information bulletins be redefined as brief, one-way transmission of timely news or important announcements of current interest. In support of his petition, Mr. Adams states that in recent months several lengthy one-way broadcasts have occurred on Amateur Service frequencies. He notes that some of the programs last for 45 minutes, five times a day and are simulcast on several frequencies.

Adams said a significant percentage of the programs consist of rambling interviews, editorials, the reading of listener's letters, recitation of signal reports received, and organizational membership solicitation. Mr. Adams fears that program broadcasting on Amateur Service frequencies will proliferate, and that the amateur bands will begin to resemble the broadcast bands ...lacking only music.

A month later, the FCC received a letter from James A. Fisher in support of the Adams petition. Fisher also requested that telegraphy bulletins/practice and RTTY bulletins be defined separately and that voice bulletins be redefined as requested by the petitioner.

In an August 23 released Order, the FCC said "the purpose of the Amateur Service is to provide for self-training, intercommunication and technical investigation by authorized persons interested in radio technique solely with a personal aim and without pecuniary interest. Broadcasting, defined as the dissemination of radio communications intended to be received by the general public, is prohibited on amateur spectrum. Certain one way communications by an amateur station are permitted, however, such as information bulletins consisting solely of subject matter relating to amateur radio."

"We now are asked to refine the rule further

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to delineate more closely the kinds of transmissions that may be included in the term, 'information bulletin,' the FCC said. "The definition proposed by the petitioner allows for a subjective determination by each amateur operator as to what is a brief, timely announcement and whether the news to be conveyed is of outstanding importance or current interest. There would be no way to enforce compliance with such a requirement. Further, the flexibility that has been enjoyed by those stations that currently transmit information bulletins would be endangered." The FCC also refused to adopt Mr. Fisher's suggestion to separately define telegraphy and telephony bulletins ...adding that neither Adams nor Fisher showed that current programming was seriously disrupting the Amateur Service ...or that such disruption is likely in the future.

AMATEUR TELEGRAPHY PETITION DENIED

On February 4th, Wolfgang W. Kaiser, filed a petition to lower the General Class telegraphy requirement to 10 words per minute and institute an Advanced Class 15 wpm telegraphy examination. The resulting telegraphy skill ladder, therefore, would be in 5 wpm increments. Kaiser argued that the resulting 5-10-15-20 wpm progression would provide more amateur operators the opportunity to increase their technical skills because it would deemphasize the telegraphy requirements that discourage them from upgrading to a higher operator license class. He said there would be a minimal administrative impact on the Commission because examinations are prepared and administered by volunteer examiners (VE's).

In denying the petition, the FCC said "the petitioner's argument is not persuasive in view of the many General and Advanced Class operators who have already passed the 13 wpm element 1(B) examination. ...In fact, the petitioner's proposal to increase the Advanced Class operator telegraphy requirement to 15 wpm would make it more difficult to advance to that grade. ...Adoption of the proposal, moreover, would increasse the burden upon the VE's because it would require them to prepare and administer an additional examination element. Further, it would make obsolete their current supply of element 1(B) examination materials."

"Petitions requesting a change in telegraphy speeds are not new. As recently as 1987, the petition of *William G. Welsh*, *W6DDB*, requesting a telegraphy speed ladder of 4-8-12-16-20 wpm was

denied because it would increase the work of the VE's and was unnecessary in view of the fact that over the years amateur operators were able to upgrade by mastering the required telegraphy speed."

"NATIONAL POLICE BOX FREQUENCIES"

According to a September 7th FCC news release, the petition of *William R. Gardner*, *W8WG*, of Athens, Ohio, requesting to permit amateur stations to engage in direct emergency communciations with local police and state patrol offices has been denied.

Gardner proposed a system whereby amateur stations would transmit emergency messages on Amateur Service frequencies to be designated as "National Police Box Frequencies." These tranmissions would be monitored at local police and state patrol offices. The police and state patrol base station transmissions on police frequencies would, in turn, be monitored at amateur stations.

Gardner argues that it is vital to allow amateur operators during emergencies to communicate directly with local police or state patrol offices. He compares his proposed system with police call box systems that many large cities had years ago. The police call boxes had a direct line to police head-quarters. Such systems provided the public with a way to call the police and summon help.

The FCC noted the type of communications that Gardner envisions are prohibited by FCC Rules. "Amateur stations are prohibited from 'business communications' - except for emergency communications directly related to the immediate safety of life of individuals or the immediate protection of property. The term 'business communications' in this context includes communications in conjunction with a normal police patrol. Thus, the exception provided for emergency communications ...does not provide the basis for using Amateur Service frequencies and facilities to supplement police communications systems."

"The communications the petitioner asks us to authorize are normally conducted on public telephone systems and in the *Police Radio Service*. ...The Commission has determined that the Amateur Service should not be used as an alternative to other radio services. ...Further, the petitioner has not demonstrated that the Amateur Service is an effective means of providing such supplemental

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communications service. In addition, most amateur stations in repeater operation provide interconnection with the public switched telephone network, a more appropriate means to communicate with local police departments." The FCC also noted that routine interception and divulgence of police communications could violate the privacy statutes.

AMATEUR RADIO CALL SIGNS

...issued as of the first of September 1988.

Radio	Gp."A"	' Gp."B	" Gp."C"	' Gp."D"
District	Extra	Advan.	Tech/Gen	Novice
0	WNOD	KEOXQ	NOJSE	KBODFB
1	NT1J	KC1KY	N1FYG	KA1SOD
2	WJ2P	KE2IO	N2INY	KB2GIC
3	NR3Q	KD3JK	N3GMG	KASTOV
	AB4KD	KM4GS	N4TTD	KC4GTN
5 (*)	AA5HP	KG5MX	N5NBU	КВ5ННН
6 (*)	AA6KI	KJ6LK	N6TCA	KB6ZWO
7	WS7M	KF7NM	N7LPU	KB7FTQ
8	WJ8P	KE8TW	N8JWS	KB8FLL
9	WC9M	KE9MJ	N9HTE	KB9BLV
N. Mariana Is.		AHOAE	KHOAK	WHOAAH
Guam	KH2K	AH2CB	KH2DI	WH2ALR
Johnston Is.	AH3B	AH3AC	KH3AB	WH3AAC
Midway Island		AH4AA	KH4AD	
Palmyra/Jarvi	АПЧАА	NH4AD	WH4AAF	
		ALICID	NUICOD	MILLOCAD
Hawaii	(**)	AH6JD	NH6QR	WH6CAD
Kure Island	41100	411040	KH7AA	141110 4 4 1/
Amer. Samoa		AH8AD	KH8AG	XAA8HW
Wake Wilkes		AH9AD		WH9AAH
	(**)			WL7BSD
Virgin Islands			NP2CR	WP2AGB
Puerto Rico	(**)	KP4PP	WP4QU	WP4IEJ

NOTE: * = All 2-by-1 format call signs have been assigned in the 4th, 5th and 6th radio districts. 2-by-2 format call signs from the AA-AL prefix block now being assigned to Extra Class amateurs, ** = All Group "A" (2by-1) format call signs have been assigned in Hawaii, Alaska and Puerto Rico. Group "B" (2-by-2) format call signs are assigned when Group "A" run out.

 Large red-white-blue 1989 wall calendars featuring the words AMATEUR RADIO in very large lettering are available from:

Lockheed E.R.C. Amateur Radio Club - W6LS 2814 Empire Avenue Burbank, California 91504

Cost is \$5.00 each postpaid. Send mailing label. [We buy two or three every year!]

SUNSPOTS MAY HIT 200-YEAR PEAK...

... is the title of a feature in the August 27th edition of the Washington Post newspaper! As a general rule, higher smoothed [averaged] sunspot numbers mean improved ionospheric high frequency radio propagation ...higher maximum usable frequencies ...and better DX! They can also mean communications and/or power blackouts and damage to orbitting satellites.

Sunspots recur in 11-year cycles, going from zero in the low month of the cycle to 100 to 200 a month at its peak. The peak is now approaching, and it may be one of the most violent in the 250 years that detailed records have been kept!

The peak number of sunspots is expected in December 1989, with intensity gradually increasing until then. But so far more sunspots have flared up than at the same stage of the greatest recorded periods of solar disruption in 1870 and 1957, according to researchers at the National Oceanic and Atmospheric Administration's (NOAA) sun-watching laboratory in Boulder, Colorado.

"We are in the steepest part of the climb up to maximum activity." said Pat MacIntosh of the NOAA's Space Environment Services Center. "This one is coming up as fast as any cycle we've seen."

The intensity of the cycle is most often measured by comparing the average number of sunspots during a 13-month period. In the current period, the average is 51.3 sunspots. During the same period in the cycle that peaked in 1957, Cycle 19 - the greatest sunspot cycle ever previously recorded, the average was 40.7.

"Up until now it is the highest ever, but we are still early in the cycle," said NOAA statistician Sue Greer. "We just don't know what the peak of the cycle will be. The activity could level off into a normal range or continue above all the previous ones," she said.

Since 1729, 23 sunspot cycles have been recorded. The shortest has been 7 years and the longest 17. The average is 11.1 years. Two months ago, solar scientists saw a sunspot about the size of 100 Earths. Sunspots, which appear black when viewed through a telescope, are 6,400 degrees Fahrenheit compared to the 10,000 degree inferno around them.

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● The FCC and the FBI are in the midst of a massive crackdown against satellite signal theft via modified VideoCipher-II descramblers. Raids have already been conducted against sellers of descrambling devices in Evansville, IN, Ocala, FL, Cartersville, GA, Las Vegas, NV, Flushing, NY and Palestine, TX. Marketers of unauthorized satellite descramblers or technology are subject to civil sanctions and criminal penalties of as much as \$500,000 in fines and five years imprisonment!

ANOTHER ATTACK ON HAM ANTENNAS

Jim Leeds, N6CXR, has become another victim of yet another senseless attack on amateur radio antennas. Jim, a life-long ham and resident of Merced County [California], recently moved into a new house and erected his 60-ft. antenna only to be informed shortly thereafter that an anonymous complaint of a public eyesore had been filed against him with the County Zoning Board. Jim has never been officially consulted nor asked to comment to the zoning board about this, yet he has been served with a Notice to Comply (by September 19th), with a 35-ft. height restriction.

The Compliance Order is supposedly based on "health, safety and asthetic values" of the neighborhood. There are, however, several oddities about this order that should be noted by all for future reference.

First, Jim lives just outside the city limits of Merced, which in fact declares by ordinance a policy of non-interference with amateur antennas. Jim lives close enough, however, to be considered within the "sphere of influence" of the city. Further, the county has never indicated any zoning or limitations on any type of antenna before; it's a rural farm-oriented county that requires numerous towers for communications of all types, in all manner of locations (not to mention the thousands of TV antennas.)

Jim has never been consulted on this matter -- either by neighbor nor by the zoning board. This was done with neither evidence nor discussion. Nor has there ever been any precedence for such zoning limitations in the county. There is concern that if an arbitrary decision can be made to arrive at a limiting height, then the same zoning board could ban antennas altogether.

The overall attitude expressed by the zoning

board also appears to be rather prejudicial. They have indicated that Jim's antenna was the only structure of its type being limited by the board, and that each hypothetically subsequent installation would be on a case-by-case basis. There appears to be no prejudice at all towards TV antennas — nor against any other type of antennas (i.e., satellite dishes, commercial towers, etc.) within the county. This appears illegal from several different aspects.

It does, however, present quite a precedent for the more rural counties in California ...and elsewhere. Regardless of how illegal such zoning decisions are, there is a trememdous potential nuisance and expense to the individual amateur to be endured. Jim is looking for assistance to nip this problem in the bud. Contact Jim, N6CXR, at (209) 383-0661 or at K6RAU-1 BBS.

MORE ON WAYNE GREEN, W2NSD/1

We ran a story in our August 15th issue on the resignation of 73 Magazine's Editor-in-Chief, Larry Lediow, NA5E. Actually what we ran was a computer generated press release forwarded to us by Larry. It was published verbatim -- including the headline. We didn't change a word.

Larry's version is that difficulty with editorial, personnel and managerial policies forced him to leave 73 Magazine. We have known Ledlow for years and had no reason to suspect that the release might not be true. He is from Texas, and Larry headed up one of our VE testing teams in England prior to accepting the 73 Magazine position.

Coincidently, the Associated Press circulated a lengthy article on Wayne nationwide about this same time. We received several copies of it. Since part of the AP story mentioned high personnel turnover at Green's publishing enterprises, we quoted from that article.

Wayne Green has written us four times since we ran the story and he is very upset with us to say the least. His letters include a "not for publication" headline so we won't go into them except to say that he feels the August 15th write-up is destructive to 73 Magazine and to him personally.

We have tried to telephone him at least a half a dozen times, but he won't talk to us - nor will he return a phone call. We wanted to tell Wayne that we have "no axe to grind" ...and that we still

dio Examination questions. multiple choices correct answer iden-

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considered him a friend. Frankly, we didn't think the Ledlow resignation was that big a deal. We wrote Green and offered to run a write-up on his version of the Ledlow resignation.

We also wanted to ask Wayne about another lengthy and totally uncomplimentary newspaper article (Manchester Sunday News, July 31, 1988) about Green and his operation that ran side-by-side with the AP story that we quoted from. We feel his anxiety is misdirected.

We were never able to reach Wayne Green, but did talk to the *Associate Publisher*, *Stu Norwood*, who said he would respond to the Ledlow release. We told him we would publish it ...which follows verbatim:

73 EDITORIAL MATTERS

"We would like to shed some balance and perspective on the item you ran in the August 15 issue about the resignation of 73's former editor-inchief, Larry Ledlow.

Ledlow's comments about disputes, managerial policies, lack of support, and the like are laughable -- a tempest in a teapot. He never discussed with Wayne W2NSD or with me, any such concerns or grievances. Never. Not once. In fact, he cited as reasons for wanting to resign as 'tack of intellectual challenge' and his difficulties with being fully immersed month-after-month in amateur radio.

We were surprised by the content, as well as the tone of his remarks in the **W5YI Report**, and fail to understand why he would want to burn his bridges.

Ledlow painted a very blurred picture, indeed, of 73's editorial situation. Wayne's door is always open, as is mine, for every staffer in the company. We listen to grievances, problems, suggestions and solutions. We also listen to ideas, input, and feedback from enthusiastic staffers -- employees who have a genuine interest in not only their careers, but also in the quality and growth of 73. Morale at 73 is very high, as it is throughout Wayne's company.

Ledlow is the first, the only, person to quit in a huff at 73, ...leaving a residue of hostility. In the five years I have been with 73 I have worked with energetic, motivated, bright staff with the stamina to succeed, and grow along with 73. Company-wide, neither Wayne nor myself have been subjected to a single disgruntled quitter. Wayne creates an atmosphere of tremendous opportunity within his company. The opportunities are there for the taking for staffers who choose to work hard and excel.

Bryan Hastings, NS1B, is now the managing editor, and Dave McLanahan, WA1FHB, our technical editor. Becky Niemela is the senior editor, and Linda Reneau and Martha Gouse are copy editors."

THE MANCHESTER NEWSPAPER ARTICLE

"Who is this Man, and Why are They Picking on Him," by Jeanne Morris appeared in the Sunday July 31st Manchester News. It said a book published by Newton, Massachusetts, attorney Gordon Williamson calls Wayne Green "...a Liar, Unstable and a Business Flop." Williamson is the husband of Green's former wife, Virginia, who was married to Green for four years in the early 1960's.

The stated motivation for the Williamson book is "the truth about Green should be known to voters before he attracts any serious following." Wayne won the non-binding New Hampshire vice presidential primary with some 32,000 votes even though a publicized campaign kickoff senatorial endorsement at a local Wendy's Restaurant failed to materialize.

The Manchester News write-up said that Williamson used his own company to publish the book and has hired a Newton, Mass., public relations firm to conduct an advertising campaign in the New Hampshire Sunday News, the Monadnock Ledger, the Peterborough Transcript and several radio magazines. The article also says that "A spokesman for Green said he declined to be interviewed by the press about Williamson's book."

The Morris newspaper article quotes from the book about Green's toilet habits (childhood embarrassment about his small anatomy and how it left him afraid of girls -- unable to use a public toilet -- unable to undress in a locker room -- "I would turn to jelly when I would get with a girl.") Williamson got the quotes from a public letter Green submitted in federal court in 1974 while awaiting sentencing for felony income tax fraud and perjury. Williamson asks: "What about the judgement of a man in his 50's writing tasteless drivel in a public document."

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The book review also mentions that Green has misled the public about being a Rensselaer Polytechnic Institute graduate, and founding Byte Magazine and Mensa USA. The truth was also stretched on the amount of money Green sold his company for in 1983. (It was \$5000 plus \$1 million in a 10-year promisory note rather than the \$60 million Green publicized.)

A chapter "Lunacy or Worse" is filled with what Williamson calls miscellaneous "Greenisms." Williamson accuses Green of being vulgar, having bad taste, exhibitionism and of making thinly veiled statements revealing a violent character. The chapter also reprints a photo "published in a consumer hi-fi magazine of himself in a Santa Claus costume with his trousers dropped. Yes, it is hard to believe. Hence, the accompanying exhibit," Williamson wrote. A copy of the photo appears in the book.

THE LITTLE YELLOW BOOK

All of the above came from the Manchester newspaper clipping. We still had not seen the book at this point ...nor did we know where to get one. I called Westlink's *Bill Pasternak/WA6ITF* since he has been on the staff of *73 Magazine* more than 25 years. Bill said he had not yet read the book, but that it was being sold at Ham Radio Outlet in Anaheim, California. I called HRO's *Jim Rafferty/N6RJ* and had me ship me one via Federal Express.

The book arrived on September 1st. It is entitled "See Wayne Run. Run, Wayne, Run.An assessment of a candidacy" and is only 75 pages long -- \$4.50 via mail order from The Barkley Company, Inc., P. O. Box 430, Natick, Mass. 01760. We tried to reach this firm but they have no telephone. We understand it is owned by Gordon Williamson, but don't know for sure. Williamson's phone in Newton, Mass., is "non-published at the subscriber's request."

The book is even more outrageous than the Manchester News review! Among other things, it says:

- (1.) Green was fired for stealing confidential circulation information while editor at *CQ* magazine. He later started *73 magazine*.
- (2.) 73 Magazine was a failure that is until Williamson's wife, Virginia (and Green's first wife),

was hired back nine years after they were divorced to manage and save 73. "She did a good job" and subsequently founded the "spectacularly successful Byte magazine." Virginia also paid a portion of Green's \$20,000 criminal fine according to Williamson

- (3.) Williamson also accuses Green of mailing twice as many magazines as he prints. 73 Magazine's publisher's statements in the 1970's claimed 75,000 to 102,000 circulation. A former comptroller recalled a circulation of about 50,000. Bills from 73's printer in mid-1975 showed press runs of 45 to 49 thousand.
- (4.) Williamson lists an incredible list of Green's business failures.
- (5.) The last chapter -- Chapter 8 -- is left blank for the reader "to write their own conclusion about Green's aspirations for public office."

In short, the entire book -- from beginning to end does nothing but severely defame Wayne Green in a very viscious manner. Bill Pasternak finally read the book and told us that he feels that it was written by someone filled with hate rather than someone trying to alert the public of a problem with a political candidate. Bill, who has been at 73 longer than anyone, said Green has always treated him fairly and the book's portrayal "isn't the Wayne Green I know."

LEGAL RECOURSE

The "See Wayne Run" book is either true, half true ...or not true at all. In any event, it appears certain to hurt Wayne Green and 73 Magazine. Wayne Green is a public figure ...particularly in view of his Vice Presidential campaign. A Right to Privacy greatly diminishes when a writer gains stature as a public figure, particularly with respect to those areas of the writer's life in which the public has a legitimate interest -- but even public figures can't be defamed.

Defamation is an attack on the reputation of another person. Both libel and slander are forms of defamation, libel being expressed in print, writing, pictures, or signs, and slander being expressed by spoken words. In order to recover for libel, a public figure must show by clear and convincing evidence that defamation was done with malice — that is with knowledge that the statement was false or with a reckless disregard as to whether the statement was true or false. We hope that Green challenges the authenticity of the book in court.